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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,614	10/20/2003	Kunio Harada	HIRA.0125	2602
38327	7590	06/01/2007		
REED SMITH LLP 3110 FAIRVIEW PARK DRIVE, SUITE 1400 FALLS CHURCH, VA 22042			EXAMINER VATHYAM, SUREKHA	
			ART UNIT 1753	PAPER NUMBER
			MAIL DATE 06/01/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/687,614

Applicant(s)

HARADA ET AL.

Examiner

Surekha Vathyam

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. Contrary to applicant's remarks on page 5, filed on 14 May 2007, no amendment to the abstract or substitute abstract has been received in this application.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: line 12 of claim 1 should be corrected to read - -degrees or less - - instead of "degrees of less".  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Zare et al. (US 4,675,300).

Regarding claim 1, Zare ('300) discloses an electrophoresis apparatus (see fig. 3) comprising: a plurality of capillaries (column 7, lines 5 – 7); a voltage applicer (36) applying voltage between both ends of the capillaries (column 3, lines 44 – 47); a laser light source (46) irradiating a laser (column 3, line 64 – column 4, line 3); and a fluorescent detector detecting a fluorescence emitted from inside of the capillaries

(column 4, lines 5 – 17), wherein each of capillaries comprising a first region where it is coated with a polymer, a second region where a surface of the capillary being exposed for a predetermined length in the longitudinal direction (column 3, lines 32 – 37 and fig. 4), and a third region provided between the first and second regions, covered with a tapered polymer coating whose thickness becomes thinner from the first region to the second region, wherein a slope of the surface of the coating of the third region makes an angle of 70 degrees or less with the longitudinal direction of the capillary (see fig. 4).

Regarding claim 2, Zare ('300) discloses the electrophoresis apparatus wherein a material of the tapered polymer coating is polyimide (column 3, lines 34 – 37).

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1 and 2 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 2 and 4 – 5 of copending Application No. 10/897099 in view of Zare et al. (US 4,675,300). Regarding instant claim 1, each of claims 1 and 4 of Application No. 10/897,099 disclose all the limitations of the capillary recited in the instant claim except for the explicit disclosure of the electrophoresis apparatus components.

Zare ('300) teaches an electrophoresis apparatus comprising a plurality of capillaries (column 7, lines 5 – 7); a voltage applier (36) applying voltage between both ends of the capillaries (column 3, lines 44 – 47); a laser light source (46) irradiating a laser (column 3, line 64 – column 4, line 3); and a fluorescent detector detecting a fluorescence emitted from inside of the capillaries (column 4, lines 5 – 17).

It would have been obvious to one of ordinary skill in the art to have included the capillary of Application No. 10/897,099 in the electrophoresis apparatus of Zare ('300) because it would have the benefit of improving the fluorescence detection of target species as they pass through a detection volume as taught by Zare ('300) (column 2, lines 38 – 59).

This is a provisional obviousness-type double patenting rejection.

### ***Response to Arguments***

7. Applicant's arguments filed 14 May 2007 have been fully considered but they are not persuasive. Applicant argues the capillary tubing with tapered coating of the instant application "has the advantage of preventing stresses from concentrating on the glass

tube of the capillary tube at the edge of the capillary when the capillary tube is bent after the windows are processed". Applicant's remarks regarding preventing stress do not relate to claim limitations. Contrary to applicant's remarks Zare ('300) discloses a first region where it is coated with a polymer, a second region where a surface of the capillary being exposed for a predetermined length in the longitudinal direction (column 3, lines 32 – 37 and fig. 4), and a third region provided between the first and second regions, covered with a tapered polymer coating whose thickness becomes thinner from the first region to the second region, wherein a slope of the surface of the coating of the third region makes an angle of 70 degrees or less with the longitudinal direction of the capillary (see fig. 4). A terminal disclaimer submitted in connection with application 10/897,099 is currently not approved hence the double patenting rejection is being maintained.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Surekha Vathyam whose telephone number is 571-272-2682. The examiner can normally be reached on 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SV/  
May 24, 2007



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